

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	10259	sip or session adj initiat\$4 adj protocol	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:42
L2	121691	1 and execut\$4 (software or program) and client	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:02
L3	1810	(sip or session adj initiat\$4 adj protocol) near2 message	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:02
L4	257	3 and execut\$4 near2 (software or program) and client	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:06
L5	291	3 and execut\$4 near2 (software or program or code) and client	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:39
L6	1177	(sip or session adj initiat\$4 adj protocol) adj message	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:10
L7	188	5 and 6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:37
L8	2	"6389007".pn.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:39
L9	103	5 not 7	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:41
L10	87	9 and session	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:41

L11	400708	10 adn protocol	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:41
L12	84	10 and protocol	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:41
L13	34	(sip or session adj initiat\$4 adj protocol) same execut\$4 adj (program or software)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:44
L14	7	(sip and session adj initiat\$4 adj protocol) same execut\$4 adj (program or software)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 12:45



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#1 ((sip or session initiation protocol or session initiated
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#2 ((sip or session initiation protocol or session initiated
protocol<in>metadata) <and> (java<in>metadata))

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ChaiTime: a system for rapid creation of portable next-generationtelephony services using third-party software components

Anjum, F. Caruso, F. Jain, R. Missier, P. Zordan, A.
Bellcore, Morristown, NJ;

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Abstract

We present the architecture, design and experimental research prototype implementation of ChaiTime, an open system architecture for the rapid development of advanced next generation telephony services that overcomes some of the limitations of the current closed PSTN architecture and service model. ChaiTime allows communication sessions to be set up over the PSTN, the Internet, or a combination of both. Services can be provided by multiple cooperating distributed service providers, some of whom may use third party software components which can be "plugged in" or even dynamically downloaded from the network as needed. This allows advanced services to be deployed and delivered to users rapidly; a crucial requirement in the increasingly competitive telecommunications services marketplace. ChaiTime is built upon an object oriented call model called Java Call Control (JCC) which we have defined as a small set of extensions to the standard Java Telephony API (JTAPI) call model that allows support for distributed providers as well as advanced services. JCC hides details of underlying call state management, protocols and hardware from applications. In our prototype, we have designed a small set of extensions to SIP, called Extended SIP, for supporting advanced services. The ChaiTime prototype software is currently operational in our laboratory. We briefly describe its current implementation as well as future work to address issues such as fault tolerance

Index Terms

Inspec

Controlled Indexing

Internet telephony Java application program interfaces computer telephony integration open systems telephone networks

Non-controlled Indexing

ChaiTime Extended SIP Internet JCC JTAPI call model Java Call Control advanced next generation telephony services advanced services closed PSTN architecture communication sessions competitive telecommunications services marketplace fault tolerance multiple cooperating distributed service providers object oriented call model open system architecture portable next generation telephony services rapid creation standard Java Telephony API third party software components underlying call state management

Author Keywords

Not Available

References

No references available on IEEE Xplore.

Citing Documents

1

Integration of Internet and telecommunications: an architecture for hybrid services, Gbaguidi, C.; Hubaux, J.-P.; Pacifici, G.; Tantawi, A.N.
Selected Areas in Communications, IEEE Journal on

On page(s): 1563-1579, Volume: 17, Issue: 9, Sep 1999

- 2 Java call control, coordination, and transactions, Jain, R.; Anjum, F.M.; Missier, P.; Shastri, S.
Communications Magazine, IEEE
On page(s): 108-114, Volume: 38, Issue: 1, Jan 2000
- 3 Building blocks for IP telephony, Bergmark, D.; Keshav, S.
Communications Magazine, IEEE
On page(s): 88-94, Volume: 38, Issue: 4, Apr 2000

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Key: IEEE JNL = IEEE Journal or Magazine, IEE JNL = IEE Journal or Magazine, IEEE CNF = IEEE Conference, IEE CNF = IEE Conference, IEEE STD = IEEE Standard

1. **ChaiTime: a system for rapid creation of portable next-generation telephony services using third-party software components**
Anjum, F.; Caruso, F.; Jain, R.; Missier, P.; Zordan, A.;
Open Architectures and Network Programming Proceedings, 1999. OPENARCH '99. 1999 IEEE Second Conference on
26-27 March 1999 Page(s):22 - 31
IEEE CNF
2. **Prototyping SIP-based VoIP services in Java**
Hua Zou; Hongman Wang; Wenxin Mao; Bai Wang; Focant, S.; Handekyn, K.; Chantrain, D.; Marly, N.;
Communication Technology Proceedings, 2000. WCC - ICCT 2000. International Conference on
Volume 2, 21-25 Aug. 2000 Page(s):1395 - 1399 vol.2
IEEE CNF
3. **JAIN protocol APIs**
Bhat, R.R.; Gupta, R.;
Communications Magazine, IEEE
Volume 38, Issue 1, Jan. 2000 Page(s):100 - 107
IEEE JNL
4. **Building blocks for IP telephony**
Bergmark, D.; Keshav, S.;
Communications Magazine, IEEE
Volume 38, Issue 4, April 2000 Page(s):88 - 94
IEEE JNL
5. **SIP security issues: the SIP authentication procedure and its processing load**
Salsano, S.; Veltri, L.; Papalilo, D.;
Network, IEEE
Volume 16, Issue 6, Nov.-Dec. 2002 Page(s):38 - 44
IEEE JNL
6. **CORBA component based implementation of telecom services building blocks**
Gross, J.; Wegscheider, F.; Zeiss, J.;
Enterprise Distributed Object Computing Conference, 2003. Proceedings. Seventh IEEE International
16-19 Sept. 2003 Page(s):308 - 314
IEEE CNF
7. **Next generation service creation using XML scripting languages**
Bakker, J.-L.; Jain, R.;
Communications, 2002. ICC 2002. IEEE International Conference on
Volume 4, 28 April-2 May 2002 Page(s):2001 - 2007 vol.4
IEEE CNF
8. **JAIN: a new approach to services in communication networks**
de Keijzer, J.; Tait, D.; Goedman, R.;
Communications Magazine, IEEE
Volume 38, Issue 1, Jan. 2000 Page(s):94 - 99
IEEE JNL
9. **Porting the session initiation protocol to IPv6**
Robles, T.; Ortiz, R.; Salvachja, J.;

Internet Computing, IEEE
Volume 7, Issue 3, May-June 2003 Page(s):43 - 50
IEEE JNL

10. The war of presence and instant messaging: right protocols and APIs

Debbabi, M.; Rahman, M.;
Consumer Communications and Networking Conference, 2004. CCNC 2004. First IEEE
5-8 Jan. 2004 Page(s):341 - 346
IEEE CNF

11. Formal definition of SIP proxy behavior

Stojic, G.; Radovic, R.; Sriljic, S.;
EUROCON'2001, Trends in Communications, International Conference on.
Volume 2, 4-7 July 2001 Page(s):289 - 292 vol.2
IEEE CNF

12. Hardware realization of a Java virtual machine for high performance multimedia applications

Berekovic, M.; Kloos, H.; Pirsch, P.;
Signal Processing Systems, 1997. SIPS 97 - Design and Implementation., 1997 IEEE Workshop on
3-5 Nov. 1997 Page(s):479 - 488
IEEE CNF

13. Java call control, coordination, and transactions

Jain, R.; Anjum, F.M.; Missier, P.; Shastry, S.;
Communications Magazine, IEEE
Volume 38, Issue 1, Jan. 2000 Page(s):108 - 114
IEEE JNL

14. The impact of network convergence on telecommunications software

Moyer, S.; Umar, A.;
Communications Magazine, IEEE
Volume 39, Issue 1, Jan. 2001 Page(s):78 - 84
IEEE JNL

15. Authentication of Signaling in VoIP Applications

Srinivasan, R.; Vaidehi, V.; Harish, K.; LakshmiNarasimhan, K.; LokeshwerBabu, S.; Srikanth, V.;
Communications, 2005 Asia-Pacific Conference on
03-05 Oct. 2005 Page(s):530 - 533
IEEE CNF

16. The fluid computing middleware: bringing application fluidity to the mobile Internet

Bourges-Waldegg, D.; Duponchel, Y.; Graf, M.; Moser, M.;
Applications and the Internet, 2005. Proceedings. The 2005 Symposium on
31 Jan.-4 Feb. 2005 Page(s):54 - 63
IEEE CNF

17. Design and implementation of a generic software architecture for the management of next-generation residential services

De Turck, F.; Vanhastel, S.; Vlaeminck, K.; Dhoedt, B.; Demeester, P.; Vandermeulen, F.; De Backer, F.; Depuydt, F.;
Integrated Network Management, 2003. IFIP/IEEE Eighth International Symposium on
24-28 March 2003 Page(s):605 - 618
IEEE CNF

18. Formal definition of SIP end systems behavior

Radovic, R.; Crkvenac, I.; Sriljic, S.;
EUROCON'2001, Trends in Communications, International Conference on.
Volume 2, 4-7 July 2001 Page(s):293 - 296 vol.2
IEEE CNF

19. An end-to-end service provisioning scenario for the residential environment

Duenas, J.C.; Ruiz, J.L.; Santillan, M.;

Communications Magazine, IEEE
Volume 43, Issue 9, Sept. 2005 Page(s):94 - 100
IEEE JNL

20. Opening up networks with JAIN Parlay

Beddus, S.; Bruce, C.; Davis, S.;
Communications Magazine, IEEE
Volume 38, Issue 4, April 2000 Page(s):136 - 143
IEEE JNL

21. Value-added services in the converged network

De Serres, Y.; Hegarty, L.;
Communications Magazine, IEEE
Volume 39, Issue 9, Sept. 2001 Page(s):146 - 154
IEEE JNL

22. A mobile agent-based advanced service architecture for wireless Internet telephony: design, implementation, and evaluation

Emako, B.; Glietho, R.H.; Pierre, S.;
Computers, IEEE Transactions on
Volume 52, Issue 6, June 2003 Page(s):690 - 705
IEEE JNL

23. Composition of Java-based router elements and its application to generalized video multicast

Yu Dong; You, D.K.Y.; Lui, J.C.S.;
Network, IEEE
Volume 18, Issue 6, Nov.-Dec. 2004 Page(s):27 - 33
IEEE JNL

24. QoS in parallel programming through application managers

Danelutto, M.;
Parallel, Distributed and Network-Based Processing, 2005. PDP 2005. 13th Euromicro Conference on
9-11 Feb. 2005 Page(s):282 - 289
IEEE CNF

25. Profile-guided Java program partitioning for power aware computing

Sriraman Tallam; Rajiv Gupta;
Parallel and Distributed Processing Symposium, 2004. Proceedings. 18th International
26-30 April 2004 Page(s):156
IEEE CNF